

# PATENT ABSTRACTS OF JAPAN

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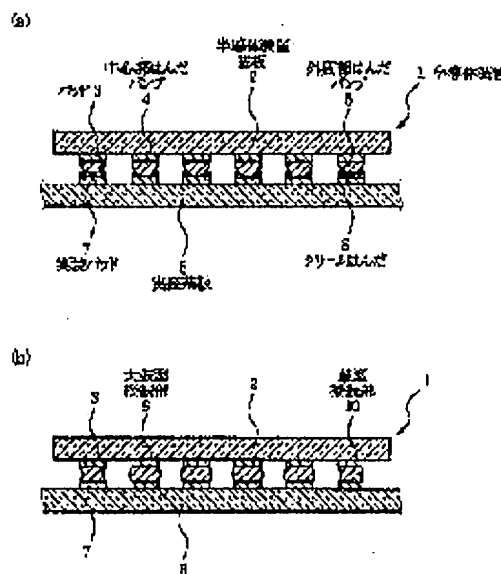
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## (54) INTEGRATED CIRCUIT DEVICE AND METHOD OF CONNECTING IT TO SUBSTRATE

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To obtain an integrated circuit device and method of connecting it to a substrate whereby high-reliability drum-like connections are easily formed.

**SOLUTION:** Pads 3 are formed on the periphery of a semiconductor device substrate 1. Peripheral solder bumps formed on the pads 3 are lower than central solder bumps 4 formed on a plurality of central pads 3 disposed on the central part. A semiconductor device 1 is positioned and mounted on a mounting substrate 6. The solder bumps are heated to melt, resulting in that the central bumps 4 of the device 1 melt to form large drum-shaped connections 9 the height of which determines the connection height of the semiconductor device 1 to the substrate 6 and the peripheral bumps 5 are expanded up to this connection height to form drum-like connections 10.



## LEGAL STATUS

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